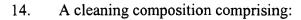
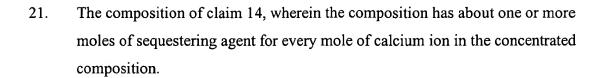
What is claimed is:

- 1. A cleaning composition comprising:
 - a) a source of calcium ion;
 - b) a source of alkalinity;
 - a sequestering agent capable of complexing with calcium ion in an alkaline environment;
 - d) a surfactant; and
 - e) a water-soluble or water-dispersible acid-substituted polymer.
- 2. The composition of claim 1, wherein the acid-substituted polymer comprises an acid-substituted acrylic polymer.
- 3. The composition of claim 2, wherein the acid-substituted acrylic polymer is substituted with sulfonic acid, sulfinic acid, phosphoric acid, phosphoric acid, or carboxylic acid on the acid group.
- 4. The composition of claim 2, wherein the acid-substituted acrylic polymer comprises a sulphonated-hydrophobically modified polyacrylate.
- 5. The composition of claim 2, wherein the acid-substituted acrylic polymer comprises a hydrophobically modified copolymer.
- 6. The composition of claim 5, wherein the hydrophobically modified copolymer is modified with styrene or a C_3 - C_{22} alkyl group.
- 7. The composition of claim 1, wherein the composition further comprises a solvent to form a use solution, and the concentration of the composition in the use solution is from about 0.5 wt. % to about 20 wt. % of the total use solution.
- 8. The composition of claim 1, wherein the composition has less than about 0.5 wt.% by total weight of the composition as silicate.

- 9. The composition of claim 1, wherein the composition is prepared by admixing the components a, b, c, d, and e with a solvent.
- 10. The composition of claim 1, wherein the composition has a molar concentration of calcium ion from about 0.001 to about 1 moles per liter of composition.
- 11. The composition of claim 10, wherein the composition has about one or more moles of sequestering agent for every mole of calcium ion in the concentrated composition.
- 12. The composition of claim 1, wherein the composition comprises a concentrated cleaning solution comprising:
 - a) from about 0.001 mole to about 1 mole of calcium ion per liter of solution;
 - b) from about 0.1 wt. % to about 20 wt. % source of alkalinity;
 - c) about one mole or more of sequestering agent for each mole of calcium ion;
 - d) from about 0.05 wt.% to about 20 wt.% surfactant; and
 - e) from about 0.25 wt. % to about 10 wt.% water-soluble or water-dispersible acid-substituted polymer.
- 13. The composition of claim 1, wherein the composition comprises a use solution comprising:
 - a) from about 0.00001 mole to about 0.1 mole of calcium ion per liter of solution;
 - b) from about 0.01 wt. % to about 10 wt. % source of alkalinity;
 - c) about one mole or more of sequestering agent for each mole of calcium ion;
 - d) from about 0.001 wt. % to about 10 wt. % surfactant; and
 - e) from about 0.01 wt. % to about 1 wt. % water-soluble or water-dispersible acid-substituted polymer.



- a) a source of calcium ion;
- b) a source of alkalinity;
- c) a sequestering agent capable of at least partially complexing with calcium ion; and
- a surfactant selected from the group consisting of: primary or secondary alcohol ethoxylate, secondary alkane sulfonate, secondary alcohol sulfonate, alpha olefin sulfonate, linear alkyl benzene sulfonate, primary alcohol ethoxy carboxylate, sarcosinates, or mixtures thereof.
- The composition of claim 14, wherein the surfactant is N-acylsarcosinate, secondary alcohol sulfonate, or linear alkyl benzene sulfonate.
- 16. The composition of claim 14, wherein the surfactant is secondary alcohol sulfonate.
- 17. The composition of claim 14, wherein the composition further comprises a solvent to form a use solution, and the concentration of the composition in the use solution is from about 0.5 wt. % to about 20 wt. % of the total use solution.
- 18. The composition of claim 14, wherein the composition has less than about 0.5 wt. % by total weight of the composition as silicate.
- 19. The composition of claim 14, wherein the composition is prepared by admixing the components a, b, c, and d with a solvent.
- 20. The composition of claim 14, wherein the composition has a molar concentration of calcium ion from about 0.001 to about 1 moles per liter of composition.



- 22. The composition of claim 14, wherein the composition comprises a concentrated cleaning solution comprising:
 - a) from about 0.001 mole to about 1 mole of calcium ion per liter of solution;
 - b) from about 0.1 wt. % to about 20 wt. % source of alkalinity;
 - c) about one mole or more of sequestering agent for each mole of calcium ion; and
 - d) from about 0.05 wt.% to about 20 wt.% surfactant.
- 23. The composition of claim 14, wherein the composition comprises a use solution comprising:
 - a) from about 0.00001 mole to about 0.1 mole of calcium ion per liter of solution;
 - b) from about 0.01 wt. % to about 10 wt. % source of alkalinity;
 - c) about one mole or more of sequestering agent for each mole of calcium ion; and
 - d) from about 0.001 wt. % to about 10 wt. % surfactant.
- 24. A cleaning composition comprising:
 - a) a source of calcium ion;
 - b) a source of alkalinity;
 - c) a sequestering agent capable of at least partially complexing with calcium ion; and
 - d) a silicone-containing surfactant.
- 25. The composition of claim 24, wherein the surfactant is dimethicone propyl PG betaine.

- 26. The composition of claim 24, wherein the composition further comprises a solvent to form a use solution, and the concentration of the composition in the use solution is from about 0.5 wt. % to about 20 wt. % of the total use solution.
- 27. The composition of claim 24, wherein the composition has less than about 0.5 wt.% by total weight of the composition as silicate.
- 28. The composition of claim 24, wherein the composition is prepared by admixing the components a, b, c, and d with a solvent.
- 29. The composition of claim 24, wherein the composition has a molar concentration of calcium ion from about 0.001 to about 1 moles per liter of composition.
- 30. The composition of claim 24, wherein the composition has about one or more moles of sequestering agent for every mole of calcium ion in the concentrated composition.
- 31. The composition of claim 24, wherein the composition comprises a concentrated cleaning solution comprising:
 - a) from about 0.001 mole to about 1 mole of calcium ion per liter of solution;
 - b) from about 0.1 wt. % to about 20 wt. % source of alkalinity;
 - about one mole or more of sequestering agent for each mole of calcium ion; and
 - d) from about 0.05 wt.% to about 20 wt.% surfactant.
- 32. The composition of claim 24, wherein the composition comprises a use solution comprising:
 - a) from about 0.00001 mole to about 0.1 mole of calcium ion per liter of solution;
 - b) from about 0.01 wt. % to about 10 wt. % source of alkalinity;

- c) about one mole or more of sequestering agent for each mole of calcium ion; and
- d) from about 0.001 wt. % to about 10 wt. % surfactant.
- 33. A method of treating a metal surface, the method comprising: contacting a metal surface with an aqueous cleaning solution comprising the composition of claim 1, 14, or 24; and removing the solution from the metal surface.
- 34. The method of claim 33 wherein said metal surface comprises an aluminum surface.